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LAKES STATES ROUNDWOOD PULPWOOD MARKETS: A SHORT-TERM OUTLOOK

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ABSTRACT.--Recent changes in the behavior of factors influencing the Lake States roundwood pulpwood market indicate there is potential for change within the pulpwood market. Softwood roundwood pulpwood production could increase at an average annual rate of near 2 percent, while all roundwood pulpwood production could moderate to an average annual rate of near 1 percent over the short-term run.

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The U.S. pulp and paper industry is operating at near full capacity and at an all-time high level of production. Paper and woodpulp prices are also higher than ever before. This situation could lead to changes in pulpwood procurement within the Lake States (Minnesota, Michigan, Wisconsin) in the near future, depending on what happens to the overall economy.

A LOOK AT THE PAST

The demand for pulp and paper in the United States increased steadily after World War II. Throughout the period, the industry repeatedly overexpanded production capacity. As a result the industry operated much below capacity and hence earnings were low. So, although the general price for wholesale goods increased, the prices for bleached softwood and hardwood kraft pulp grades purchased on the open market remained stable (fig. 1).

Since World War II the use of Lake States pulpwood species has shown two diverse trends.[1/] Use of aspen and dense hardwood pulpwood has increased about 3.5 percent annually; use of softwood pulpwood, on the other hand, has decreased about 1 percent annually.

1/ *Data for trends were collected by the North Central Forest Experiment Station and reported annually in Research Notes.*

Several things have influenced these trends. For instance, although the net annual growth of both hardwood and softwood growing stock in the Lake States has exceeded the harvest,[2/] much of the softwood pulpwood is not growing in readily accessible locations. On the average, softwood pulpwood must be hauled farther than hardwood. This, along with low pulp yields for some of the little-used but abundant softwood species (e.g., balsam fir) makes wood pulp in the Lake States produced from softwoods more costly than for wood pulp from hardwoods. In fact, more than one mill reported the total cost of softwood fiber per ton of pulp in their operations was almost double the cost of hardwood fiber.

The price of market pulp remained stable during the post World War II period. Therefore, the cost of this softwood kraft pulp from outside the region became more competitive with locally produced softwood pulp. In addition, market softwood and hardwood kraft pulp cost about the same. As a result, the Lake States industry expanded paper capacity much faster than pulp capacity (fig. 3) and concentrated its pulping capacity on producing hardwood pulp from local sources. An increasing amount of long-fibered softwood pulp was obtained from the open market and company-owned mills outside the region.

Therefore, the relative cost of obtaining hardwood and softwood fiber has been a primary influence on the Lake States' pulpwood market since World War II.[3/]

RECENT TRENDS

Because of low earnings, high interest rates, and large expenditures for air and water pollution abatement, the pulp and paper industry has slowed expansion and the past waves of overexpansion have been, at least temporarily, curtailed. Little increased capacity is planned and expansion already begun will take time to implement.

The industry has recently been producing at more than 97 percent capacity. It now appears that the demand for wood pulp is approaching, and perhaps may soon exceed, the supply available under current price ceilings.

2/ Survey reports for Minnesota, Michigan, and Wisconsin: (1) Robert N. Stone, A third look at Minnesota's timber, USDA For. Serv. Resour. Bull. NC-1, 64 p., North Cent. For. Exp. Stn., St. Paul, Minn., 1966; (2) Clarence D. Chase, Ray E. Pfeifer, and John S. Spencer, Jr., The growing timber resource of Michigan, 1966, USDA For. Serv. Resour. Bull. NC-9, 62 p., North Cent. For. Exp. Stn., St. Paul, Minn., 1970; (3) John S. Spencer, Jr., and Harry W. Thorne. Wisconsin's 1968 timber resource--a perspective, USDA For. Serv. Resour. Bull. NC-15, 80 p., North Cent. For. Exp. Stn., St. Paul, Minn., 1972.

3/ A detailed discussion of many of these factors can be found in: David C. Lothner, The Minnesota and Wisconsin pulpwood markets: an econometric study of past changes and the future outlook for forest resource planning. Univ. of Minn. Ph.D. Thesis (in preparation).

The price of wood pulp has spiraled upward from the past stable level to an all-time high. Bleached softwood market kraft woodpulp was quoted at $203 per ton for both the third and fourth quarters of 1973 (fig. 2). It has remained at this level only because of the existing price ceilings; it probably will increase again, although at a slower rate, once the current ceiling prices are lifted. Canadian softwood market kraft, which is not under a price ceiling, was quoted at $235 per ton for the 1973 fourth quarter.

Finally, if the current energy shortage continues, the plastics industry may be faced with a shortage of their basic raw material, oil. This could force a switch to paper products, thus further increasing the demand for paper.

THE OUTLOOK

Since the Lake States pulp and paper industry has become increasingly dependent on softwood kraft woodpulp from outside the region, these recent trends have some important implications for the short-term Lake States pulpwood market. The increase in pulp prices, along with a potential decrease in softwood saw log production stemming from a reduction in housing starts, could lower the relative cost of local softwood pulpwood and make its use locally more competitive with softwood kraft pulp from outside the region. This means that many softwood stands that for various reasons (geographical location, low pulp yields, etc.) have previously been uneconomical to harvest for pulpwood may now become operable. If so, we can expect softwood species, such as jack pine and the little-used balsam fir and tamarack, to be utilized more by industry in the near future.

How much utilization of the Lake States softwood species increases will depend on the factors influencing pulpwood production already alluded to. However, we expect only a small pulp and paper capacity expansion by the Lake States industry and the mills to continue to operate near full capacity, unless we have a severe economic setback or raw material shortage due to the energy crisis. Therefore, improvement in the short-term softwood pulpwood market is expected to average around 2 percent through 1975, the average increase in all Lake States pulpwood production for the 1960-1970 period. Because of the small increases in pulp capacity, all Lake States roundwood pulpwood production could moderate to about a 1 percent increase per year through 1975; aspen and mixed hardwood production would increase only slightly.

A softwood pulpwood production increase of more than 2 percent and only small additions to pulping capacity would probably indicate a severe shortage of softwood woodpulp coming into the Lake States from outside the region. As a result, the Lake States industry would have to increase its own production of softwood pulp at the expense of hardwood pulp production. This would reduce the total woodpulp available within the region and probably curtail paper and paperboard production. However, such a development is unlikely to occur in the near future unless there is a severe shortage of out-of-region woodpulp or prices of market pulp become so high as to make its use unprofitable.

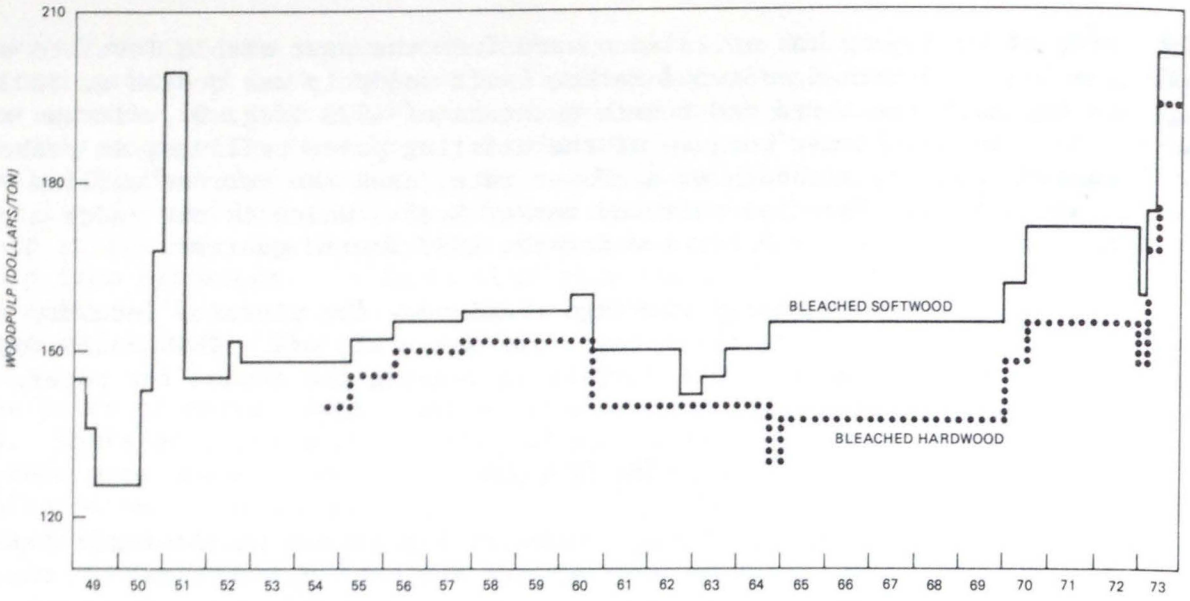

Figure 1.--*Market wood pulp prices for U.S. bleached softwood kraft and bleached hardwood kraft, 1949-1973. (Source: Paper Trade Journal.*

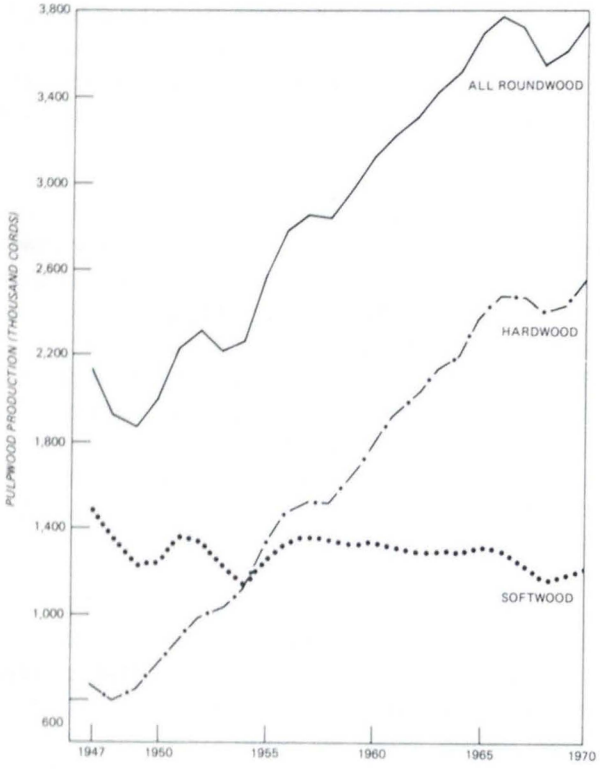

Figure 2.--*Lake States pulpwood production: 3 year moving average, 1947-1970. (Source: North Central Forest Experiment Station.)*

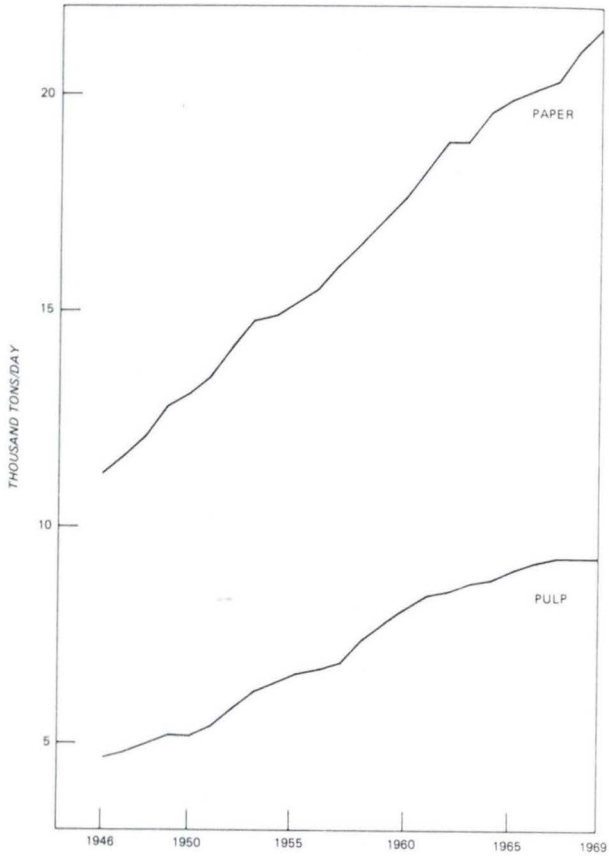

Figure 3.--*Lake States paper and pulping capacity, 1946-1969. (Source: Lockwood's Directory.)*